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Situating local knowledge within development agenda: Some reflections

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Abstract

The paper endeavors to personify development and shows the multi-dimensionality of the concept. It argues against the power relations influencing knowledge production while attempting to shed light on what knowledge is all about. It provides a range of definitions of local knowledge (LK), presents its stages of production and expressly buttresses the importance of LK in agenda-setting for development initiatives. The paper also argues that the framing and labeling of LK and its custodians by outsider-professionals in connivance with their insider-expert colleagues have been one of the challenges to placing a premium on local knowledge within the development agenda. While emphasizing the need for stakeholders' partnership to enable working towards congruence in the midst of chaos and order, the paper calls for a more eclectic approach and reflexivity amongst development experts when drawing the agenda for development programs. It also advocates for the codification and teaching of local knowledge in Universities and Colleges.

Keywords: Development, local knowledge, power relations, framing and labeling, partnership.

Introduction

Development "business" is without doubt a serious matter. It is likened to a pregnant woman who, until she delivers the baby, tries hard to follow through with her daunting pregnancy. Perhaps using a better description, development business comes across as a case of the hapless woman who, for the umpteenth time, has had a stillbirth! While the woman is synonymous with development initiatives and their "powerful" actors, the baby is equated with the aftermath of development endeavors wherever they are seen and felt. By and large, the failings of development initiatives (as they come in their various forms and designs over the years) attest to this argument. It seems development problems have continued to defy solutions so much so in sub-Saharan Africa. The UN Millennium Development Goals (MDGs) approach is one of the most recent of these global initiatives towards international development meant to target the poor wherever they are situated, particularly in the global South. Although this initiative has recorded a positive outcome elsewhere, the same cannot be said of Africa, where the HIV/AIDS pandemic has continued to ravage the populations, malaria upsurge has continued to soar, environmental degradation has progressed unabated, child and maternal mortality have been a major problem, where the standard of education has fallen over time and where conflicts have continued to hold sway.

Essentially, the complex nature of development has been largely influenced by the complex nature of man himself. To overcome development challenges, therefore, a whole range of approaches and multiple pathways are needed to overcome diverse human problems. While, for instance, anthropologists are undertaking qualitative research aimed at unearthing useful information on the realities of everyday life of a particular group of people located within a cultural milieu (issues in local knowledge also apply here), economists are engaged mainly in scientific reductionism engendered by their age-long, traditional quantitative analyses replete with hypothesis formulation. It is safe to admit that a combination of the various modes of scientific investigation, therefore, enhances a holistic approach to viewing and solving development problems. Various approaches of implementing development research and programs have been delineated. For the purpose of clarity, I have attempted to shed light on these interwoven approaches elsewhere. Thus, I have attempted a comparative analysis of the four interrelated concepts of disciplinarity[1a], which are *cross-disciplinarity*, *multi-disciplinarity*, *inter-disciplinarity* and *trans-disciplinarity*[ii]. I further argued that a trans-disciplinary rather than inter-disciplinary approach appears to be the most appropriate strategy for doing development

research and/or business. Although Indian-born applied economist Ravi Kanbur affirmed that "[c]ross-disciplinarity is not straight forward,"[iii] he contended that "[p]erhaps the best that can be hoped for is multidisciplinarity (sic), where different disciplines are set the task of answering a common set of analytical or policy questions, and once this task is done, a synthesis is attempted which provides an over-arching analysis and policy conclusion"[3]. But then, his proposition may be faulty as he tends to overlook the ambiguities and disagreements which are inherent in situations where an attempt is made to create hurriedly a synergistic relationship amongst the various traditions of scientific enquiries. Thus, trans-disciplinarity seeks to minimize these potential attritions from the on-set by ensuring that all parties agree on a common front before the commencement of the proposed scientific endeavor[2].

Certainly, development is all about people and people themselves are about development.[iv] Exigencies have, thus, continued to compel people – in the process of unleashing their potentials - to devise means of comprehending and overcoming their environment. Over many years, personal experiences, reasoning, and "unregulated" investigations and experimentation have been means of achieving this within a given local environment. From this derives what has come to be known as local knowledge (LK) or indigenous knowledge (IK)[v]. In recognition of the practical and research dimensions of the concept, a delineation of three interrelated concepts of local knowledge (LK) has been made[vi], thus, showing the relationships between the concepts of *indigenous knowledge* (IK), *indigenous knowledge systems* (IKS) and *indigenous technological knowledge* (ITK). While other authors seem to have overlooked the distinctions between these three concepts and as such lump them together or interchange their usage without restraints[vii], these definitions and/or demarcations tend to remove certain ambiguities about LK itself.

Essentially, indigenous knowledge represents a general umbrella concept, meaning the participants' knowledge of their temporal and social space. As such, IK refers not only to the knowledge of indigenous people, but to that of any other defined community. Going by this claim, therefore, IK would need a separate identity from traditional knowledge. True tradition, as opposed to *invented tradition,* is seen and felt in the originality of people's way of life and this "…[o]perates on the practical level of repeated actions based on opinion or belief. The actors

need not have any knowledge, indigenous or otherwise, to successfully carry out and pass on their traditions"[6].

Indigenous knowledge systems, on the other hand, are conceived to mark out a "cognitive structure in which theories and perceptions of nature and culture are conceptualized"[6]. Here, "…definitions, classifications and concepts of the physical, natural, social, economic and ideational environments" are taken into consideration. In a way, '[t]he dynamics of IKS operate on the cognitive and empirical levels. Empirically, IKS are visible in institutions, artifacts and technologies"[6]. Indeed, research in LK is rooted within this sphere. Elsewhere, IKS is defined as the sum of experience and knowledge of a given culture, society or group which, therefore, forms the basis for decision-making in diverse myriad of problems and challenges in agricultural production[viii]. However, this definition is limiting. Although central to grassroots communities' everyday existence, agriculture is just an aspect and not the totality of an entire rural life.

Indigenous technological knowledge, which is conceived of as being practically-oriented, is "concerned with operationalized local thinking in such fields as agriculture, fisheries, health, horticulture, and forestry"[6]. These are essentially the observable scenarios where local ways of knowing are put into actions for problem-solving and development purposes.

In this paper, I attempt to shed some light on development as a concept. The article also endeavors to explore the politics of knowledge and particularly what is framed as "local knowledge", while it also, in the same vein, outlines how this form of knowing comes about. I contextualize LK and situate it within the framework of the development agenda. The paper also presents the challenges this may pose to development practitioners and how the perceived obstacles can be overcome. Practical experiences are then provided to buttress the strength of LK in an attempt to argue for its significance in the development process and discourse. In sum, this article gives a strong voice for providing a framework for the valorization and entrenchment of LK within the mainstream of development theory and practice.

Development as "freedom"

Development is conceived to be a necessity in all human endeavors. Its all-encompassing features, therefore, buttress its importance in any interventionist program. Development has, therefore, been aptly equated with human freedom. It has to do with "…the removal of major sources of unfreedom" in the sense of people"s ability to fight "economic poverty", tyrannical

oppression, systematic social deprivation, etc., which do deny people of their basic physiological, social, psychological and political needs.[ix] Mahbub ul Haq, the renowned Pakistani economist, who together with Amartya Sen created the Human Development Index (HDI), gives a vivid description of what development is all about:

> The basic purpose of development is to enlarge people's choices... People often value achievements that do not show up at all, or not immediately, in income or growth figures: greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. *The objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives* (emphasis mine). [x]

Haq's description is apparently in agreement with Sen's. Both submissions are explicit and seem to be pointing our attention to Abraham Maslow's hierarchy of needs. Accordingly, some levels of human needs in a progressive order of importance are: physiological (comprising air, food, shelter, sex, etc.), safety (depicting protection, security, order, etc.), belongingness and love (representing family, affection, relationships, etc.), esteem (achievement, status, responsibility), and self actualisation - the highest form of need - which reflects in one's personal growth and fulfilment; to become all that one is capable of becoming[xi]. Needless to say then, that true development seeks to achieve all of this for people; due consideration for and attainment of such yearnings are the motivators that propel individual human progress. It is noteworthy that humanistic theories do agree that culture and society within which people operate play, to some extent, an important role in shaping human personality[11]. The environment in which an individual lives partly shapes his or her thinking and creativity. Nonetheless, it is a matter of coincidence that the last sentence in Haq's submission [as emphasized in the quotation above], which aligns with what Maslow identified as the highest form of human need, is central to this discourse. Man's ability to become creative and impact his environment positively is, therefore, the highest form of development. This he can only do through knowledge production and its meaningful utilization. A people's ability to identify their needs, develop the strategies to achieve them, and then go further to use those strategic [local] knowledges does enhance the realization of their potentials. Nonetheless, there has been an age-long attrition between "dominant" [global] and local knowledge. The following section, thus, addresses the power tussles and conflict situations existing between the two bodies of knowledge.

The Politics of knowledge

The rise of post-modernist thought has changed the way knowledge is perceived. Thus, it is somewhat difficult to provide a simple meaning to what knowledge is all about. Scoones and Thompson argue that "[e]very system of knowledge…has its own epistemology, its own theory of what constitutes and what counts as knowledge."[xii] Thus, a delineation has been made between two forms of knowledge as they have been generally perceived: *erudite knowledge* (scientific) and *local popular knowledge* (without a common meaning; unscientific)[xiii]. In what Foucault terms *a "return of knowledge"* he alludes to the *insurrection of subjugated knowledges.* By *subjugation* he refers "to the historical contents that have been buried and disguised in a functionalist coherence or formal systematization". He, on the other hand, referred to this as "a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated: naïve knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity…"[13]Either directly or indirectly, "dominant" and/or global knowledges have always sought to suppress other forms of knowledge, which ordinarily desire a voice. Thus, a hostile environment has not allowed the "parasite" and "minor literature" a free expression[xiv]. Foucault argues elsewhere that "…the criteria of what constitutes knowledge, what is to be excluded and who is designated as qualified to know involves act of power"[xv]. True as this claim might be, it pre-supposes that the politics of knowledge can always be brought to bear where aggregation of knowledge is the emphasis within the formal context of international discourses and socio-economic and political actions. Even at the local-level frontiers, this may, in a way, obtain where there are grassroots power actors. But then, do politics and power relations actually stop the resource-poor farmer or the native doctor from experimenting, even with his poverty? Does "popular legitimacy" take away from individuals what they have? Whether acceptable or not, local knowledge will continue to thrive within its own context even in the face of modernity. And if the development agency fails to recognize the potency of local knowledge, it becomes harder to break through the self-erected barrier. Time and again, experience shows that "[r]egardless of the degree to which they have embraced modernity, local people continue to prefer concrete knowledge, which belongs to them in time and space, and which they deem suitable for particular purposes"[4]. That said, it is heart-warming to note that the postmodernists' positionality about knowledge not being a "commodity" meant for a particular region or race is a

giant stride towards turning around the conventional way of doing development business. What then is local knowledge? The following section answers this question.

Local knowledge (LK) described

The concepts of *local* or *indigenous* knowledge are often used interchangeably. Some schools of thought believe that the use of the word "*endogenous"* is even more appropriate than "*local"*, "*traditional"* or "*indigenous"*, which are considered derogatory in the description of the knowledge systems that are associated with grassroots people[xvi]. "Local knowledge is tempting for its simplicity" because people tend to overlook its "…system of concepts, beliefs, and ways of learning"[xvii]. The term "local" or indigenous knowledge (IK) has, thus, been used to distinguish the knowledge developed by a given community from international knowledge systems or scientific knowledge, which could sometimes be referred to as "Western" knowledge systems (WKS) that are generated by universities, government research centers and private industry[xviii]. Elsewhere, indigenous knowledge is conceived as "[t]he unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area".[xix] To give a more holistic definition of the concept, IK is viewed as the "technical" insight or wisdom gained and developed by a people in one particular locality, through years of careful observation and experimentation with the natural phenomena around them.[4] In emphasising the importance of IK, it is affirmed that the knowledge of local people is an enabling component of development. IK is, thus, described as the feathers of a bird, since "a bird can only fly if it has feathers"[xx].

Historical antecedent of local knowledge

IKS are acknowledged to be "… as old as the history of man's search for ways and means of dealing with his environmental circumstances to satisfy his basic needs of food, shelter and clothing"[xxi]. Anthropologists, since about 1900, have commenced a systematic investigation into the subject. Having undergone a period of lull for many years, there began a renaissance in the seventies when geographers, agriculturists and other natural scientists developed interest in the subject. The term "indigenous knowledge" had metamorphosed from an array of terms used to portray the knowledge possessed by local communities[21]. In 1980, the team of David Brokensha, Oswald Werner and Michael Warren had struggled to find a term that could replace "traditional" in the designation "traditional knowledge". Around the time they were contending that the word

"traditional" denoted the 19th century attitudes of simple, savage and static society, Robert Chambers and his group at the University of Sussex were also struggling with the same idea. However, "[i]ndependent of each other, they both came up with the term "indigenous" which has, over the years, come to overshadow the various other terms[21]. For the purpose of convenience and identification, advocates of LK have been referred to as *neo-indigenistas* while their belief in the value and contribution this form of knowledge offers in sustainable development has been tagged *neo-indigenismo*[xxii]. Indeed, the failings of "grand theories of development" have influenced a change in the lens for mirroring development amongst social scientists. Considerations are, thus, made "…to favor middle-range theories that are site- and time-specific"[21].

Nonetheless, contrary to the claim that there are no dissimilarities between local and global knowledges[xxiii], some scholars have conceived LK as different from the western knowledge systems (WKS) on substantive methodological or epistemological and contextual grounds[xxiv]. Arguing from some personal reflections and viewpoint, no salient differences could be associated with the local knowledge systems (LKS) and the WKS other than in formalization/codification, documentation and cultural features. In a way, both systems of knowing involve careful observation, experimentation and validation. But then, as it has been argued elsewhere, regardless of the similarities existing between the two knowledge systems it may never be possible to take away the cultural underpinnings guiding their development[xxv]. Against the view that delineating these two ways of knowing could become problematic[22], contextualizing local knowledge and making it available *ex situ* would not create any "mausoleum of knowledge" exclusively meant for the rich and the powerful. Rather, it would make LK easily accessible to all stakeholders situated anywhere as globalization continues to unfold through the power of information and communication technology (ICT)[4].

Local people have aspirations too

Personal yearnings and aspirations tend to discourage complacency amongst a group of people within a locale. That said, the resilient nature of grassroots people in the face of daunting problems attests to their willingness to experiment and explore new opportunities. Thus, in a desperate bid to achieve certain goals within their given circumstances, local people undergo five stages of LK utilization. These are *awareness* (of a particular phenomenon); *perception* (of the

phenomenon as a problem); *motivation* (to search for a solution); *evidence* (arising from a specific approach employed to bring about a solution); and *utilization* (of the tried and tested approach).[4] Indeed, these stages or processes are essential for approaching development problems as they relate to local people. The ability of development workers to identify different stages at which people are in addressing a particular problem and the reasons why they are doing so could make a difference in achieving success in an aided but locally initiated project.

The ability of people to envision a better life informs their unrelenting drive to seek solutions to the myriad daunting challenges they are faced with on a daily basis. People would naturally control their own lives when there is a reference value (an image of the desired state); a perceptual function (the ability to observe the existing state); a mechanism for making comparisons (the ability to compare the existing state and the desired state for differences); and the ability to act to bring the existing state closer to the desired state. To get from the existing state to the desired state, a mental model, which is a construction in the mind, is used to provide order in the course of taking actions[xxvi]. Local people (such as farmers and artisans) have, thus, continued to take action by way of experimentation in order to satisfy their curiosity, solve problems and adapt technology[xxvii]. Essentially, the *scientificity* and legitimacy of LK are apparent in the desirable results they produce, and also in their seeming perpetuation amongst grassroots people.

Local knowledge and development

In-as-much as it is a cultural issue, LK has featured prominently in all fields of human endeavors, including agriculture, medicine, technology, climatology, conflict management and forestry. Its sectoral prominence and role in rural societies cannot in any way be gainsaid. Local or indigenous knowledge forms the basis for local level decision-making in agriculture, ethno-medicine/veterinary medicine[1b], and in other vocations of grassroots people. It is therefore seen as a potent tool with which development practitioners could work to bring about a meaningful change, particularly within rural communities. Some authors are unequivocal in their warning: "To ignore people's knowledge is almost to ensure failure in development"[xxviii]. Elsewhere, development agencies have been alerted that to ignore "traditional practitioners and the indigenous knowledge systems they represent is to court disaster when introducing innovations"[xxix]. An earlier emphasis on the importance of indigenous knowledge is also

instructive. Rather than employ the age-long traditional top-down approach of project execution, development professionals now believe that local participation is essential for the success of any development initiative. Development work becomes meaningful and sustainable when local people participate alongside project staff in the conceptualization, implementation and evaluation of development projects that affect them [grassroots people][xxx].

Thus, the latter part of the twentieth century saw the growing awareness among practitioners that IK was pivotal above all in discussions on sustainable resource use and balanced development[21, xxxi]. The reason is not far fetched. Development initiatives focus attention on poverty reduction and sustainable livelihoods in grassroots communities in the global South. Regardless of the degree of modernity and modernisation, people on which attention is focussed (in terms of the enhancement of improved living standards) have certain values and ways of life in which they pride themselves. Lack of due consideration for such socio-cultural and political factors by the "outsider-expert" in the [social] change process may automatically serve as an impediment for meaningful interventionist efforts. It thus appears then that the role of LK in development initiatives is *sine qua non* for sustainable human development. Nevertheless, some measure of emphasis has, in recent times, been on participatory methodologies in order to enhance recipients' involvement in project execution. Rather than relegated, LK needs to be prioritized in the agenda of development debate and practice.

Some empirical evidence

Time and again, there has been proof (through research studies) that local people have a strong attachment to their knowledge base[4, 25, xxxii]. This is perhaps reflected in the way in which indigenous people esteem their culture and seek to perpetuate it through certain practices and festivities. For this author, personal and field experience seems to be the best teacher. In the course of interacting with local farmers during field research and in community service activities, one thing has always come out clearly. Inasmuch as they respect the view of the *outsider academic* or *expert*, farmers have the penchant to declare that *their* practices are informed by many years of acquired experience and interaction with nature, and whatever outsider experts bring may not necessarily fit into *their* situation all the time. It is a common belief amongst people, too, that modernization through Western science is the ruin of the earth.

A social survey[1c] was conducted in the last quarter of 2007 in southwestern Nigeria with emphasis on certain categories of respondents ranging from parents, pupils, elementary and secondary school teachers, and University lecturers. The main thrust of this work was to unearth relevant information and policy issues related to the relevance of mainstreaming local knowledge in the conventional [western] education system in Nigeria for sustainable development. Using a Likert scale to rate respondents based on a set of statements, they were interviewed on their perception[1d] about the appropriateness of introducing indigenous knowledge systems into the school curriculum. Subjecting the data to regression analysis, it was found that, with the exception of University lecturers, the respondents' preferences for indigenous knowledge had very strong and positive relationships with their perception about the appropriateness of introducing elements of indigenous knowledge systems into the school curriculum.[1e] Parents' and elementary/secondary school teachers' cultural inclination (the majority of whom had had close connections with the grassroots) may have impacted directly on the favorable perception of pupils investigated in the study. On the other hand, the indifferent or negative disposition and perception of University lecturers (who apparently have had greater exposures to western knowledge) would most likely have been influenced by their advanced academic trainings and perhaps, also because of their cosmopolitanism. Specifically, well over 80.0 percent of secondary school teachers interviewed either agreed or strongly agreed that the use of indigenous knowledge is appropriate. While an average of 85.0 percent of parents did attest to the appropriateness of the use of indigenous knowledge, 60.0 percent of pupils and students ranging from primary to tertiary institutions exhibited some degree of preference towards the use of indigenous knowledge systems. Conversely, while 64.0 percent of University lecturers were indifferent as regards their perception on the appropriateness of including elements of indigenous knowledge systems in school curricula, only 23.5 percent indicated that it was appropriate for inclusion in school curricula! These findings thus serve as a lead to the discussions in the following section of this paper.

Challenges of situating local knowledge within development

Framing and labeling are important influences on the relationships that exist between national/international development institutions and grassroots people for whom development programs are designed. These constitute great impediments to smooth relationships between

development agencies and program recipients. It has been argued that development actors have pre-conceived ideas and frames of mind [perhaps informed by their academic background or wrong information], which they tend to bring into different real life situations, leading to wrong assumptions about the people whose socio-economic lives they intend to improve. Informed by their wrong perceptions about individuals, they go ahead to make wrong assumptions, categorizations and labels that may persist for a long time. Somehow, these "socially acquired preferences" or "(mis)information" subsequently prevent those actors from seeing people through an objective lens that may have allowed them to think otherwise[xxxiii].

Thus, the main challenge to deal with in the first place is the way outsider-experts or scientists view their clientele. Although not directly addressing the subject-matter here, some light was shed on the critical and cynical academics/social scientists whose pre-occupation, by virtue of their trainings, is to find fault, which invariably affects their views about many issues and especially those including rural development programs[17]. Thus, from the outsiders' biases, it was argued that "… the centre-periphery biases of outsider's knowledge are reflected in the concentration of research, publication, training and extension on what is exotic rather than indigenous, mechanical rather than human, chemical rather than organic, and marketed rather than consumed…" Resource-poor farmers, for instance, have generally been perceived as traditional, conservative, risk averse, lazy, unprogressive and fatalistic![17] Rather than do research to enhance LK, most African scientists go about branding their people negatively. Not until very recently when they began to see the relevance of local knowledge in the fields of medicine and agriculture, scientists' views had, in the past, been marred with certain prejudices against local knowledge with regard to its scientific validity and methodology. Even so, many of us still hold some reservations about its appropriateness. Once again, an author provided a true picture of what we (as knowledge producers and carriers) seem to stand for: "As expert researchers, policy makers, program managers and evaluators, we all harbor biases that are not displayed publicly but may be the subject of our private conversations or become much more evident 'when only [we] and a mirror are about.'"[33] One would think that there is need for some measure of reflexivity among development experts at the moment.

It appears again that even though they play a crucial role in power relations as to whom knowledge belongs, the challenges are not so much the obstacles that are met in outsider-experts' standpoint but those in the cynical *insider-academics* and scientists who would not see anything

good in ideas emanating from within, perhaps because they have been brainwashed by western education. Of interest are the African academics/scientists, the majority of who do not see reasons in promoting what belongs to Africa. All they see is darkness and anachronism! Unlike their Asian counterparts who have since taken the lead, valorizing local knowledge has not been the primary pre-occupation of African academics and scientists. There have been cases where local initiatives by "deviants" amongst them have been literally killed. An aborted initiative of a maverick, Western-trained Nigerian medical doctor (who was working on HIV/AIDS some few years ago) serves as a good example at this point. Based on his preliminary findings, he had openly declared and claimed that it was possible to cure HIV/AIDS through some herbal preparations. Some scientists, however, differed on the truth of these findings by affirming that the procedure had not followed any western standards. Rather than find out the authenticity of his claim and explore some avenues to encourage him if this were true, the Federal Ministry of Health - overseen at the time by a Professor of Medicine - immediately clamped down on his laboratory and prevented him from going any further with the research![xxxiv]

Again, the issue of power relations come to the fore here. If University people and those who are educationally empowered give moral and intellectual support to the local custodians, artisans and native philosophers (in the latter's quest to advance knowledge frontiers), by way of democratizing the African education system, there is no reason why outsiders and development practitioners would hesitate to join hands in promoting what belongs to the people. Nonetheless, South Africa is already, at the moment, blazing a trail in this respect. For over a decade, the South African government has implemented education policies that encourage the incorporation of local knowledge contents in school curricula and teaching. The following section points our attention to the indispensable nature of LK in local level development initiatives.

Evidence-based scenarios emphasizing the role of local knowledge in development

In order to show how significant it is for development initiatives to build on LK in their designs, two practical and true life examples are cited below for the purpose of analysis in this paper. Thus, a description of what people's knowledge could do to enhance the success of any development program is provided. The case of a hospital project that never saw the light of day supports the argument of this paper.[xxxv] Based on long standing knowledge and previous

experience of its people, a community once advised the government against building a proposed hospital on a site it [the government] thought was a choice land for the purpose. Acting contrary to this advice and wielding the political big-stick, the government - in ignorance of the grassroots' viewpoint - went ahead with the project. To the government, this suggestion by grassroots people was irrational and laughable. Nonetheless, after the project was completed, a herd of elephants numbering about one hundred ran over the structure and flattened it as it was built on a path which the mammoth beasts have used since primordial times!

Local people build their wealth of knowledge through cognitive mapping and validation. Experience plays key roles in the way they carry about their daily businesses. Almost always, they have reasons for the action they take. The failure of the hospital project could have been better imagined than experienced by the project initiators if only they had listened to the *voice of wisdom*.

Another case is of a Hindu water temples rice production project that never took cognizance of the role of indigenous knowledge in the process of its execution. This case again drives home the point that ignoring local knowledge of the people in development programs is to "ensure failure" and, therefore, "court disaster"[28, 29]. A rice production initiative was introduced in, the Hindu Water Temples in Bali, which became an irrigation project that brought chaos. A $54 million project, which was introduced by a development agency in Bali to modernize irrigated rice production, overlooked the role of the water temples in rice production. Overlooking the indigenous knowledge of the temple priests, new management systems with high chemical inputs were used. This resulted in a dramatic decline in the eel, frog and fish populations in the rice paddies; an increase in rice pests; a decline in rice production and soil fertility; and considerable confusion over water rights. Officials later realized that the rice production system had been managed by the network of temples and their priests from time immemorial[xxxvi]. This apparent failing would have been avoided if only the development agency had realized that the success of rice production in Bali was closely linked with the local wisdom of the temple priests.

The foregoing is another piece of evidence that local knowledge is crucial to the success of any development projects as they relate to grassroots people. The erroneous perception of the superiority of sophisticated (Western) science over the "traditional" local approach was, thus put to test in yet another show of shame!

Conclusions

The multiple dimensions of development call for an eclectic approach to blotting out human mysteries. This means that development issues need be viewed from various windows and addressed through diverse pathways in order to bring about meaningful social change. Thus, "[i]f development is seen as an initiative that comes from within, then the people are the *subject"*[5]. As Odora Hoppers puts it, grassroots people are not "enmeshed in the cold condescending gaze of the rich upon the poor, because endogenous development begins at the point when people start to pride themselves as worthy human beings inferior to none; and where such pride is lost, development begins at the point at which this pride is restored, and history recovered"[xxxvii] Prejudices against the indigenous knowledge of rural people have thus become apparent in the way priorities are placed on crop, livestock and forestry research, in which the Western paradigm is entirely the emphasis. Contrary to the modernist's claim that the Western scientific way of knowing holds the ace, neither local nor western knowledge can *confidently* stand on its own. Both have inherent features that are desirable for the enhancement of human progress. Indeed,"[c]ombined, they can achieve what neither would alone." And "for this combination of complimentarity to occur, outside professionals have to step down off their pedestals, and sit down, listen and learn."[17] Insider-academics' pride and self-alienation are challenged here, too. And in humility they must come off their perch! Above all, *working towards congruence* in the midst of *chaos and order to enable great things to emerge*[1f] is an imperative for stakeholders' partnership in the business of development. The University system has a role to play here. The codification, introduction and teaching of LK in the mainstream education system have long been left unnoticed and unattended.

Regardless of the amount of effort exerted by the West, nay International Development (and other multi-lateral) agencies, to bring about sustainable development in the global South, if bridges are not properly built and the wide gulf between the two divide filled, any initiatives brought under the umbrella of development in poor economies will continue to remain abysmal failures. Whether we like it or not and contrary to Hobart's belief[xxxviii], the "unbridgeable" needs be bridged and every schism must be filled. Nonetheless, timely and sincere advice has been offered: "To be part of the solution we must recognize ourselves as part of the problem"[xxxix]

Consequent upon the arguments of this paper, the following recommendations are, therefore provided:

- Policy makers need to recognize the crucial role of local knowledge in enhancing sustainable development at all levels. Thus, it is an imperative for national governments and policy makers to place local and western knowledge side by side within the framework of policy processes (its formulation and implementation) without necessarily jeopardizing the role of any of the two bodies of knowledge for any reason.
- National governments, particularly in the South, have the onus of creating a legitimate environment for the recognition and development of local knowledge systems. This could be achieved by engaging Universities and Colleges in the restructuring of school curricula that incorporate local knowledge contents into teaching and research in all stages of educational development. Hence, bringing local knowledge into the mainstream education system would automatically ensure the formalization of its role in the development process. Achieving a high motivation in this respect for academics and researchers would entail strong political will and funding for research. Not only that, well seasoned local artisans and native philosophers would need recognition and training to enable them to serve as resource persons in specialized teaching programs (where necessary) within the formal education system.
- Development agencies will need to strengthen their work within grassroots communities by identifying useful local insights that directly affect their activities. As such, native philosophers and artisans provide formidable sources of information and assistance in building a development information bank for community-level project implementation. This will, in a way, create a meaningful atmosphere for recognizing the intellectual property rights (IPR) of local knowledge producers too.

Endnotes

1a. Kanbur (2002: 483) had conceptualized cross-disciplinarity as an umbrella or general "term to mean any analysis or policy recommendation that is based substantially on the analysis and methods of more than one discipline". This is, of course, seen as a "generic term", which represents a continuum that spans across the entirety of all the other three concepts. Multi-disciplinarity as an approach "comes to bear when each discipline is given all the space and freedom to use its own methodology and system of analysis to address a particular issue, and then analytically synthesizing its output with those of other disciplines" with a view to using the emerging integral result for policy conclusion, as the case may be (Kanbur 2002: 483). This categorization conceived as an "additive approach" in the work of Molteberg

and Bergstrom (2000: 11) portrays a near disjointed design amongst concerned disciplines as they seem to stand aloof within the same sphere of knowledge production" (Kolawole 2007: 5-7). Kanbur (2002:483) was of the view that "inter-disciplinarity entails "inextricable interweaving" or integration of all disciplines right from the beginning of the analysis of a problem up to the stage of policy recommendation if that is the objective. In the design of Molteberg and Bergstrom (2000: 11), it is an interface between multi-disciplinarity and trans-disciplinarity approaches" (Kolawole 2007: 5-7).

1b. The *prefix* "ethno" has been used to imply the distinction between western science and indigenous or local knowledge. This delineation is intended to prevent the danger of the latter being assimilated [leaving it with no meaningful identity] by the former.

1c. The design of the field survey was made to elicit the different positionalities of certain stakeholders in the process of knowledge production. The research, which is still on-going in Southwestern Nigeria, also intends to address research personnel working in research based organization in Nigeria. Essentially, the surveys were simultaneously carried out by four undergraduate students with each of them investigating one category of the respondents studied.

1d. Perception of respondents were measured drawing a set of statements placed on a rating scale of strongly agreed (SA); agreed (A); undecided (U); disagreed (D); and strongly disagreed (SD). Some examples of the drawn statements are: Indigenous knowledge helps people to acquire complete knowledge of traditional culture ; There is nothing as valuable as the knowledge of our people; Western knowledge should not be allowed to suppress the local knowledge of the African society; Sustainable development can only be enhanced if traditional knowledge systems are incorporated into the educational curriculum in Nigeria; The introduction of IKS into higher institutions is welcomed; I would rather esteem my own culture above other people"s culture; Introduction of IKS into higher institutions is appropriate; IKS introduction into the educational curriculum is important for societal development; Indigenous knowledge should be used as the mode of communication in schools and colleges; and Indigenous knowledge systems that have been proved should not be compromised for any form of foreign ideas in the educational system. The mean of each respondent was then calculated as the value of the dependent variable (Y) for regression analysis purpose.

1e. Preference for the use of indigenous knowledge was measured using the same criterion but with a different set of statements such as: There is no amount of modernity that will take the knowledge of our people from them; Regardless of the degree to which people embrace modernity, they will use the knowledge that belongs to them; I would rather prefer the knowledge of our people over and above western knowledge; Local tradition enhances sustainable human development through child socialization and is mostly not hazardous to the environment. Indigenous knowledge is backward and as such, I cannot promote it; Indigenous knowledge is not organized and systematic; Traditionalism is conservative and impedes change. Indigenous knowledge is archaic; and Indigenous knowledge is too secretive. The average for each respondent was calculated as the score value of the independent variable (X) for analysis.

1f. These two principles were extracted from the *Reference Manual* (2006-2007) of the InterAction Leadership Program (ILP) of the British Council. *Working towards congruence* might mean showing consistency with one"s word and action and it could also explain a situation in which individuals having different points of view work together towards achieving the same goal in an atmosphere of mutual respect. *Working with chaos and order…* suggests bringing out worthwhile and positive results while pursuing a goal in the midst of a veritable complex environment. This reflects in the complex adaptive system (CAS).

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[ii] Kolawole 2007, pp. 1-9

[iii] Kanbur 2002, p. 484

[iv] Kolawole 2001, pp. 13-15

[v] Kolawole 2008, pp. 320 – 333

[vi] Brouwer 1998 [p. 13] in Kolawole 2005, pp. 1433-34

[vii] Howes and Chambers 1980, pp. 329-40

[viii] Warren and Cashman 1988, p. 15

[ix] Sen 1999, pp. 3-4

[x] HDR-UNDP 2006

[xi] Maslow 1943, pp. 370-96

[xii] Scoones and Thompson 1994, p. 24

[xiii] Foucault 1980, p. 82 - 82

[xiv] Milovanovic 1997, p.11

[xv] Foucault 1971 in Pottier 2003, p. 17

[xvi] Hountondji 1997, pp. 1-39

[xvii] Chambers 1983, pp. 31-86

[xviii] Warren 1991, pp. 1-34

[xix] Grenier 1998, p. 1

[xx] Dewes 1993 cited in Kolawole 2001, p. 13

[xxi] Osunade 1996 cited in Kolawole 2005, pp. 1427-43

[xxii] Agrawal 1994, p. 3

[xxiii] Agrawal 1995, pp. 3-5

[xxiv] Banuri and Apffel-Marglin 1993; Dei 1993, pp. 97-110

[xxv] Kolawole 2005, pp. 1433-34

[xxvi] Smith 1997, pp. 17-18

[xxvii] Rhoades and Bebbington 1988 in Chambers 1989, p. 185

[xxviii] Brokensha *et al*. 1980

[xxix] Rogers 2003, p. 256

[xxx] Warren 1991: 1-34

[xxxi] Warren 1990, p. 1

[xxxii] Kolawole 2002, [pp. 26, 31] in Lansing and Kremer 1991, pp. 1-10

[xxxiii] Moncrieffe 2007, pp. 84-85, 92

[xxxiv] See for instance Emelumba 2006, and Bhattacharya 2004

[xxxv] Kolawole 2003, pp. 49-54

[xxxvi] Lansing and Kremer 1995, pp. 258-68

[xxxvii] Odora Hoppers 2002, pp. 2-22

[xxxviii] Hobart 1993, p. 16

[xxxix] Eyben 2007, p. 43